STATE OF MAINE
PUBLIC UTILITIES COMMISSION

November 1, 2004

ORDER

NORTHERN UTILITIES, INC.,
Environmental Cost Remediation
Filings – Request for
Commission Approval Nunc Pro Tunc
Of Phase I Remediation of Lewiston
Manufactured Gas Plant Site

Docket No. 2004-414

NORTHERN UTILITIES, INC.,
Environmental Cost Remediation
Filings – Manufactured Gas Plant Site
VRAP Projects – Lewiston MCG Site –
Request for Commission Approval of
Phase II Remediation

Docket No. 2004-438

WELCH, Chairman; DIAMOND and REISHUS, Commissioners

I. SUMMARY

We approve Northern Utilities, Inc.'s (Northern) environmental remediation of Tanks 1, 2 and G at the old Lewiston Manufactured Gas Plant, which Northern completed in January 2004 as Phase I of its Voluntary Remediation Action Plan (VRAP) under a program administered by the Maine Department of Environmental Protection (MDEP), as described herein. We also approve the Phase II Focused Feasibility Study for the remediation of the remainder of the Lewiston MGP site.

II. PROCEDURAL HISTORY

On June 15, 2004, Northern filed for the Commission's approval *nunc pro tunc* of the Focused Feasibility Study Report/Response Action Plan Phase I (Phase I Plan) and related site investigation activities for the Lewiston MGP site. The Commission assigned this Docket No. 2004-414. On July 1, 2004, Northern filed for Commission approval of its Phase II Focused Feasibility Study Action Plan for the Lewiston MGP Site (Phase II Plan). This was assigned Docket No. 2004-438. The Office of the Public Advocate (OPA) filed a petition for intervention in Docket No. 2004-438 on July 9, 2004. On September 16, 2004, a technical conference was held to discuss these dockets, as well as Docket No. 2004-467, *Northern Utilities Environmental Remediation Cost Filing (Manufactured Gas Plant Site VRAP Projects – Portland MGP Site – Request for*

Approval of Response Action Plan).[1] Nick Hodgkins of MDEP also attended this conference and provided information regarding that agency's review and estimation of the proposed remediation plans. Northern provided responses to Oral Data Requests on October 21, 2004.

III. BACKGROUND

A. Stipulation in Docket No. 96-678

On April 28, 1997, in Docket No. 96-678, the Commission approved a stipulation requiring Northern to file with the Commission and parties[2] to the stipulation, its written evaluation of possible remediation options and recommended solutions for environmental clean-up of hazardous pollutants at its former Manufactured Gas Plant (MGP) sites in Lewiston and Portland. *Northern Utilities, Inc., Proposed Environmental Response Cost Recovery,* Docket No. 96-678, Order Approving Stipulation (April 28, 1997). In the Stipulation, the parties agreed to a sharing mechanism whereby ratepayers would pay the full environmental remediation costs on a rolling 5-year amortization schedule capped at 4% of the Company's annual adjusted total firm revenues from gas sales and transportation customers, while shareholders would bear carrying costs on all deferred Environmental Recovery Costs (ERC) balances during the 5-year amortization schedule.

The ERCA mechanism allows annual costs to be recovered in rates over a rolling 5-year amortization schedule as they are incurred. Once the scheduled recovery period is complete, the costs drop out of rates.

The parties also agreed upon a process for advance review of the Company's proposed remediation work plan so that the Company's plan could be modified, if necessary, before costs were incurred. Section III (C) of the Stipulation states:

> C. Prior to incurring environmental remediation costs, other than preliminary testing and site evaluation for the Portland

[1] At the September 16, 2004 technical conference, because Northern is still working to develop a plan for clean-up of one portion of the Portland site, the parties agreed to defer final consideration of the remediation plan for the Portland site until Northern makes an additional filing, expected in the next few months. Also, Northern indicated that clean-up of the Lewiston site is its priority for this upcoming winter because, given the odors that arise during the work, the colder weather presents a more opportune time for doing MGP remediation work. Therefore, we address only Northern's plan for the remediation of the Lewiston MGP site at this time.

[2] In Docket No. 96-678, the parties were the Office of Public Advocate (OPA) and the Commission's Advocacy Staff.

> and Lewiston sites, the Company plans to complete a written evaluation of possible remediation options and recommended solutions ("Feasibility Study"). Northern shall file the Feasibility Study with the Commission and the Parties and Northern will meet with the Parties to review the Feasibility Study before it is implemented. Thereafter, Northern will prepare a Remediation Plan for each site. Northern shall file its Remediation Plans and information regarding any material changes in the Remediation Plans with the Commission. Information regarding changes to the Remediation Plans shall be filed no later than July 15th of the year in which Northern seeks to begin collecting ERCs associated with such changes.

Section IV, Prior Review of Remediation Plan, of the Stipulation states:

> The Parties reserve the right to review the Remediation Plans filed by the Company before any associated costs are incurred and included in any ERCA, except that costs for preliminary testing and site evaluation shall not be subject to such prior review. The purpose of the review will be to allow the Parties an opportunity to determine the reasonableness and prudence of the proposed Remediation Plans or changes thereto, and costs projected to be incurred by the Company. The Parties retain the right to contest the reasonableness or prudence of any aspect of the Company's Remediation Plans, or related activities and costs, and to bring these matters before the Commission for a ruling. The Parties will endeavor to resolve any concerns by consulting with the Company as it develops and implements the Remediation Plans or modifications thereto.

B. Focused Feasibility Study Report/ Response Action Plan Phase I

On June 15, 2004, Northern filed for the Commission's approval *nunc pro tunc* of the Focused Feasibility Study Report/Response Action Plan Phase I[3] (Phase I Plan) and related site investigation activities for the Lewiston MGP site. The Phase I

[3] MACTEC Engineering and Consulting, Inc. prepared the Phase I Feasibility Study Report/Response Action Plan for the former Lewiston Gas Works Company site on behalf of Northern Utilities, Inc. The purpose of the Plan was to identify and evaluate remedial alternatives and recommend a specific approach to voluntarily conduct remediation activities that satisfy the site cleanup objectives to control oil, tar and other materials stored in underground Tar Tanks 1 and 2 and aboveground Tank G.

Plan includes activities Northern undertook between October 2003, when it filed a copy of this Plan to the MDEP, and January 2004, when it completed tank removal work. In its filing, Northern explained that it also provided to Commission Staff and the Office of Public Advocate (OPA) a copy of the Plan for Phase I of the planned, voluntary remediation for the Lewiston MGP Site in October 2003. However, Northern did not seek approval of the Plan with the Commission at the time, because, it states, it "mistakenly believed" that providing notice and information regarding its Plan to the parties was sufficient and consistent with the settlement. However, Northern later learned that the parties expected Northern would seek approval of each remediation expenditure associated with the Environmental Remediation Clause (ERC).

Northern states that the focus and goal of the Lewiston Phase I Plan was the removal of three tanks located on the site which borings samples had shown to contain oil, tar and other materials such as sand, gravel, construction debris and silty clay-like material. The tanks were known as Tar Tanks 1 and 2 and Tank G. Tank G was an aboveground structure approximately 35 feet in diameter and 45 feet in height that was originally constructed in the 1950s. When bored, Tank G evidenced 4 to 5 feet of tar at the bottom, which was estimated to be 40,000 gallons of flowable tar during the summer months. Tar Tanks 1 and 2 were 60-foot diameter subsurface tanks that were believed to be about 20 feet deep. Highly viscous to solid tar was present at the bottom of each tank and in Tank 2 was at least 8 feet thick.

The remediation goal for Tar Tanks 1 and 2 was to control the oil and tar materials stored in these tanks to prevent further migration or public health hazard. The Plan considered three alternatives for remediation of Tanks 1 and 2: (1) to excavate, recycle and reuse the materials; (2) to provide for insitu stabilization of the tanks and to solidify the material; or (3) to excavate and stabilize the material and replace it in the tanks.

The remediation goal for Tank G was to contain the materials stored in this tank in order to prevent further migration or public health hazard. Two alternatives were considered for this task: (1) to remove the tank and its contents and dispose of it off-site; or (2) to recycle the materials and reuse the materials on-site.

Northern's consultant evaluated each remediation alternative with regard to: how effective each would be to achieve the remediation objectives in the long- and short-term; how feasible implementation would be from a technical and an administrative perspective; how much time would be required to complete the remedial objectives if the alternative are chosen; and, how much each alternative would cost if implemented. For Tar Tanks 1 and 2, it was determined that the tar tanks and their contents should be stabilized in their current location for a cost of $486,000. For Tank G, it was determined that this aboveground tank should be removed and its contents disposed of off-site for a cost of $140,000. It was also determined that implementation should be phased, so that the stabilizing of Tar Tanks 1 and 2 materials

in situ and the removal and disposal of Tank G and its contents would precede other remediation efforts and evaluation at the site.

In its filing, Northern stated that these activities were completed in January 2004. Northern filed additional information indicating that Clean Harbors Environmental Services, Inc. (CHES), who was chosen through a competitive bidding process, completed the work at an actual cost of approximately $440,000. MACTEC's construction management cost was approximately $112,000. The total cost for the tank removal was approximately $552,000. Northern plans to recover the costs incurred through the ERC rate beginning in November 2004[4] over a five-year period, in accordance with the terms of the settlement as described earlier.

C. Focused Feasibility Study Report/Response Action Plan Phase II

On July 1, 2004, Northern filed for Commission approval its Phase II Focused Feasibility Study Action Plan for the Lewiston MGP Site (Phase II Plan).[5] The Phase II Plan was the basis for selecting the remedial actions for the site. The remedial actions were developed to comply with the requirements of the VRAP Program and to effectively minimize the potential for the MGP residues to adversely impact the public or the environment.

The objectives of the Phase II Plan are to prevent human exposure to coal gasification-related materials in the surface and subsurface soil; to prevent migration of dense, non-aqueous phase liquid (DNAPL) to the Androscoggin River; to stabilize the riverbank and reduce noxious odors emanating from exposed wood fibers; and, to prevent human contact with the contaminated wood fibers and to keep those materials from discharging into the river.

In developing alternatives for remediating these areas of concern, Northern again hired MACTEC. The remediation alternatives considered were evaluated based on: (1) effectiveness in protecting human health and the environment for both the long- and short-term; (2) technical and administrative feasibility; (3) the time needed to conduct the remediation; and (4) the cost.

Northern's Remediation Plan contains a number of components, tailored to remediate various types of pollutants to levels consistent with the location of the land within an industrial zone. One component will remove some liquid residues from the

[4] The ERC rate is being reviewed in Docket No. 2004-553, Northern Utilities, Inc., Cost of Gas Factor, November 2004 through May 2005. An Examiner's Report recommending approval of the CGF and ERC rates was issued in this case on October 15, 2004 and was deliberated on October 27, 2004.

[5] The Phase II Plan was also prepared by MACTEC Engineering and Consulting, Inc. in May 2004.

ground; the remaining components will encapsulate the MGP residues on the property, effectively eliminating the potential for the public to come into contact with them. The remedial actions chosen will require on-going operation, maintenance (O&M) and possibly repair. Therefore, Northern will incur additional annual environmental costs at the site for the foreseeable future. In addition, any change in the future use of the properties comprising the site will likely require additional response actions that could result in further expense to Northern. Northern states that it believes that these on-going environmental response costs are a fiscally prudent alternative to the cost of totally removing the MFP residues from the site, which it states, is the only way to truly eliminate the need for these future environmental response costs. Northern stated that it selected these financially prudent remedies based, in part, on its belief that the provisions of the Stipulation should and will remain in effect in the future.

The following table summarizes the alternatives selected, as well as the capital costs and the net present worth (NPW) of the O&M costs for these selections.

Clean-up Objective	Alternative Selected	Capital Cost	NPW of O&M Costs
Surface and Subsurface Soil	SS-2 – Impermeable Liner/Pave Lot 332 and Landscape Lot 310	$1,326,000	$ 60,000
DNAPL Area	DNAPL-3 DNAPL Collection Trench	$1,884,000	$1,272,000
Riverbank	RS-1 Riverbank Grading with Cover System	$ 644,000	$ 124,000
Total		$3,854,000	$1,456,000

Alternative SS-2 includes placement of a flexible membrane liner (FML) across the existing grade on Lot 332 to prevent upward movement of coal gasification related materials (CGRM) and leaching of constituents to groundwater, followed by a soil cover compacted and graded for stability and drainage, and finished with an asphalt paved surface using off-site source hot-batched material. A storm water collection system consisting of catch basins, drain lines, and drainage ditches, as needed, would be constructed. Storm water runoff would be discharged to the existing city storm water drainage system in Lincoln Street and/or directly to the Androscoggin River. Lot 310 would be covered with a soil layer and landscaped. The alternative includes site preparation, cover system construction, O&M activities and institutional controls.

Alternative DNAPL-3 includes three components: (1) continuous collection trench installed at the toe of the riverbank slope; (2) DNAPL recovery sumps installed within the collection trench; and (3) DNAPL pumping and storage system. The collection trench would be designed to intercept and remove DNAPL that is migrating toward the river, but would not include a physical barrier to migration. The trench would be approximately 580 feet long, 3 feet wide and 15 feet deep at the toe of the slope.

The trench would extend a minimum of 3 feet below DNAPL saturated soils. Four DNAPL recovery sumps would be installed along the length of the trench, including one at either end and two in the middle at low points. The sumps would consist of pre-case concrete structures that extend down to the bottom of the trench and intersect the perforated pipes. The DNAPL pumping and storage system would consist of one recovery pump installed in each of the four recovery sumps. DNAPL would be pumped via buried pipes up the slope to the storage tank used to temporarily store the material. Accumulated DNAPL would be transferred by truck for off-site treatment or disposal as necessary. The storage tank would be located inside a small heated building so that the DNAPL can be maintained in a pumpable state.

Alternative RS-1, Riverbank Regrading with Cover System is designed to provide a durable surface to greatly reduce potential for erosion of materials on the existing slope surface, and to retain those fill materials with a geosynthetic reinforcement system with an integral vegetative cover. The alternative includes the following primary components: installation of sediment control systems adjacent to and within the Androscoggin River; removal of vegetation from the area and removal of oversized debris; re-grading of the river bank slope to the extent possible; toe stabilization to prevent scour of the tow at base flow conditions; odor control membrane and piping system to act as a barrier to vapor migration from buried wood fibers; slope surface treatment to minimize erosion of the slope during high flow conditions; establishment of vegetation; treatment/disposal of excess excavated material; and O&M and institutional controls.

IV. ANALYSIS

A. Technical Aspects of Plan and Remediation Goals

The environmental clean up of MGP sites is a specialized task, one that is largely outside our expertise. We note that it is not solely our responsibility to determine whether Northern's remediation plans are suitable. Rather, it is the MDEP's responsibility to ensure that the state's environmental goals are met. However, we must determine whether the proposed plan and its costs are reasonable and should be included in rates. To determine whether the costs are reasonable, we must have a sense of whether the remediation that is proposed is reasonable in scope because, while complete clean up is most costly, it is not necessary or reasonable in many circumstances. Also, because certain choices in technology may be more or less cost efficient, we will review the judgments used in selecting from among alternative remediation methods. Our initial task is to determine whether it would be necessary to hire experts to assist us in assessing Northern's Remediation Plans. We first evaluate the qualifications of the parties that developed and reviewed the remediation plans for environmental adequacy. We next review the plans before us to determine if the recommended actions appear reasonable both in scope and cost.

1. Qualifications of Engineers and Consultants

During the September 16 technical conference, Northern's environmental program coordinator, Robert Cleary of NiSource Corporate Services Corporation (NCSC), explained that Northern had hired very qualified and experienced engineering firms and consultants available in the region to analyze the sites, summarize potential technological alternatives to remediate them and recommend the best ways to achieve the stated goals. Principal among the consultants Northern used for this project is Paul Exner who was also present at the technical conference. Mr. Exner, a licensed Massachusetts site consultant, has worked since 1979 on hazardous waste clean-up and since 1995 as a consultant on MGP site remediation on approximately 12 sites throughout Maine, New Hampshire and Massachusetts. Mr. Cleary has handled the mitigation of pollutants at numerous other MGP sites in the NiSource service area, including ones in Maryland, Pennsylvania, Wisconsin, New Hampshire and Massachusetts, and is well qualified to supervise the project work carried out by MACTEC and Mr. Exner.

In addition, Nick Hodgkins, Oil and Hazardous Materials Specialist with the MDEP, reviewed Northern's plans in his capacity as manager of the VRAP program and determined that the Plan meets the MDEP's requirements for the remediation of the Lewiston site. Mr. Hodgkins has overseen the clean-up of several MGP sites within Maine during his tenure at MDEP and, based on that experience, is able to provide useful comparisons of Northern's plans with other MGP clean-up projects on which he has worked. In particular, Mr. Hodgkins stated that Northern had done a thorough evaluation of the nature and extent of contamination on the sites, which tends to yield better project cost estimates and fewer unanticipated circumstances during the remediation work. Mr. Hodgkins also confirmed that Northern's engineering consultants were among the best in the region and explained that he approved of the remediation techniques recommended in Northern's plan, as well as the degree of remediation proposed to meet public health and safety and property use goals.

From the information presented by Messrs. Cleary, Exner, and Hodgkins, it is clear that Northern's plan was developed using a wealth of experience, knowledge and measured judgment to accomplish the task at hand. Therefore, we are comfortable that we need not hire another expert to add a further layer of review of Northern's proposed remediation plans.

We concur in the judgment that the site need not be remediated to a "green field" level given its location, and that future uses of the property should be carefully tailored to accommodate the remaining public health and safety concerns that arise with that use or necessary construction. We also find that Northern's Phase I remediation activities and costs are reasonable, including the remediation of Tar Tanks 1 and 2 and Tank G.

We are also comfortable with the remediation recommendations of the Phase II Plan, largely owing to the approval by MDEP's VRAP manager, whose opinion is that these plans outline appropriate environmental remediation strategies for the Lewiston MGP site that are likely to be successful.

B. Cost

1. Reasonableness

As noted above, one of our primary concerns as utility regulators is the reasonableness of the cost of the remediation plan. We are aware that, pursuant to the approved settlement in Docket No. 96-678, Northern will get substantial recovery of these costs. We must ensure that the cost of the proposed clean up is not excessive for ratepayers.

A review of the filing, corroborated in discussions with Northern, its consultants, and the MDEP, reveals that the cost of the remediation efforts was a consideration in the development of the plan. Final selections of remediation alternatives balanced the cost of the alternative with the proven effectiveness of that technique and its applicability to the peculiarities of the site and the remediation goals. The feasibility studies demonstrate that cost was one consideration woven into the calculus of selecting each remediation technique. Finally, while MDEP does not engage in a detailed cost review for proposed VRAP plans because its priority is the environmental rather than the financial effect, Mr. Hodgkins did confirm, based on his experience, that the cost estimates used for various components of Northern's remediation plan, as well as total project cost, were "in line" with those of other MGP clean-ups he has overseen and that the alternatives that Northern selected were ones that had proven to be effective. Mr. Cleary also stated that the costs were fairly typical and, with Mr. Exner, noted that each site presents different amounts and types of pollutants, as well as its own topography, all of which influence final project cost. We see nothing that suggests that Northern directed its consultants to remediate beyond a reasonable degree for the property location and likely future use, nor that the remediation plans were developed without regard to the cost. We conclude that Northern's plan for the remediation of the Lewiston MGP site is reasonable.

2. Future Use: Lease Receipts

We also note that Northern's future plans for the site may include a lease to the City of Lewiston to use the site as a parking lot, or ultimately a parking garage. The Stipulation in Docket No. 96-678 specifies that Northern will return any proceeds from the sale of remediated properties to ratepayers, however, it is silent as to the use of proceeds through leasing the property. Northern stated at the technical conference that it interprets the Stipulation to require the Company to offset remediation costs borne by ratepayers with lease proceeds. We agree that Northern should apply

lease payments against costs to reduce the ERC rate paid by ratepayers.[6] This is a reasonable interpretation of the Stipulation, particularly in light of the fact that Northern now intends to retain ownership of this land as part of its strategy for managing the pollutants that exist on the land.

C. Post-Remediation ERC Cost Recovery

Our Order approving the Stipulation in Docket No. 96-678 notes that one of the reasons we approved an annual recovery mechanism for environmental remediation costs, rather than include them in base rates, was because it would be difficult to project the magnitude of the costs that would be incurred each year for environmental assessment and remediation. We were concerned that including projected environmental cost amounts in base rates would present greater opportunity for both under- and over-recovery if treated in a traditional base rate case manner. However, we note that the bulk of the costs are incurred at the time the remediation work is done. After Northern completes its remediation of the Lewiston site, it appears that systematically recurring environmental containment O&M costs – such as periodic emptying of recovery containers, monitoring pollutant levels, and observing that the containment structures remain intact -- could be estimated as predictably as any other utility maintenance cost. Given that fact, Northern should consider including such costs in base rates when it files its next base rate case.

D. No Prior Phase I Approval

Northern did not seek Commission approval prior to conducting the remediation activities under Phase I because of its understanding that such approval was not required to under the Stipulation. Northern states in its filing that "it will not in the future proceed with even a limited, or focused, implementation of remediation efforts until a filing associated with those efforts is submitted to and approved by the Commission."

From our reading of the Stipulation, it appears that Northern is not required under the Stipulation to seek our approval prior to conducting remediation activities so long as it has informed the stipulating parties of its intended actions and they do not bring any objections regarding the matter to us for resolution.[7] At Northern's

[6] To facilitate our review in future proceedings, Northern should demonstrate that any lease payments received reflect market value.

[7] During the technical conference, we discussed the fact that certain activities might not easily be identified as purely evaluative or remedial, such as Northern's purchase of several house lots and the removal of residences thereon, necessary both for public health reasons and to allow evaluation of the pollutants on those properties. Recovery of the costs of purchase and removal, which appear to have been prudent, began in the 2001-2002 ERCA.

request, however, we have approved initial remediation actions that Northern has taken, after providing parties an opportunity to comment on the Company's decisions and expenditures. Our approval process appears to provide parties with necessary notice of Northern's plans (or in this particular case, of a past remediation action that is not yet included in rates) and an opportunity to comment on, or object to, Northern's proposal, and Northern ultimately receives a clear indication as to whether its plans meet with our approval. If Northern chooses to seek explicit approval prior to doing the work to establish that there are no objections to the project as planned, and the stipulating parties concur with this procedure, we find no need for further action.

V. CONCLUSION

Based upon our review of the filing and the Focused Feasibility Study Report/Response Action Plan (Phase I), we find that Northern's actions taken to remediate the tanks located at the Lewiston MGP site were reasonable. Accordingly, we approve Northern's removal of Tar Tanks 1 and 2 and Tank G, as previously described. In addition, the Focused Feasibility Study Report/Response Action Plan (Phase II) appears reasonable and we approve that plan to allow Northern to go forward with the remediation of the Lewiston MGP site.

Dated at Augusta, Maine, this 1st day of November, 2004.

BY ORDER OF THE COMMISSION

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Dennis L. Keschl
Administrative Director

COMMISSIONERS VOTING FOR: Welch
Diamond
Reishus

NOTICE OF RIGHTS TO REVIEW OR APPEAL

5 M.R.S.A. § 9061 requires the Public Utilities Commission to give each party to an adjudicatory proceeding written notice of the party's rights to review or appeal of its decision made at the conclusion of the adjudicatory proceeding. The methods of review or appeal of PUC decisions at the conclusion of an adjudicatory proceeding are as follows:

1. Reconsideration of the Commission's Order may be requested under Section 1004 of the Commission's Rules of Practice and Procedure (65-407 C.M.R.110) within 20 days of the date of the Order by filing a petition with the Commission stating the grounds upon which reconsideration is sought.

2. Appeal of a final decision of the Commission may be taken to the Law Court by filing, within **21 days** of the date of the Order, a Notice of Appeal with the Administrative Director of the Commission, pursuant to 35-A M.R.S.A. § 1320(1)-(4) and the Maine Rules of Appellate Procedure.

3. Additional court review of constitutional issues or issues involving the justness or reasonableness of rates may be had by the filing of an appeal with the Law Court, pursuant to 35-A M.R.S.A. § 1320(5).

Note: The attachment of this Notice to a document does not indicate the Commission's view that the particular document may be subject to review or appeal. Similarly, the failure of the Commission to attach a copy of this Notice to a document does not indicate the Commission's view that the document is not subject to review or appeal.